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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/687,953

10/17/2003

Yen-Kuang Chen

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EXAMINER

MALZAHN, DAVID H

ART UNIT

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Please find below and/or attached an Office communication concerning this application or proceeding.

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/687,953
Filing Date: October 17, 2003
Appellant(s): CHEN ET AL.

Lawrence M. Mennemeier
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 17 March 2008 appealing from the Office
action mailed 17 August 2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The amendment after final rejection filed on 17 March 2008 has been entered.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

No evidence is relied upon by the examiner in the rejection of the claims under appeal.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-8 and 10-18 stand rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Art Unit: 2100

The claims are directed to a method or article for performing a computation, i.e. a bi-linear interpolation, via a mathematical algorithm to produce interpolated data as the result. According to claim 1 to effect an interpolation a shuffle instruction and a multiply-add instruction are decoded followed by carrying out the instructions which involve shuffling data and then performing multiplication and addition relative to the data. The claims are not limited to a practical application of the mathematical algorithm because the result is not a tangible result because it is not a real-world result, i.e. interpolated data is not a real-world result.

The examiner asserts that the use of instructions, as per claim 1, to perform the mathematical algorithm does not produce a tangible result, i.e. a real world result, but merely interpolated data. However, even if the result is considered to be tangible and hence a practical application, the claimed invention in effect covers every substantial practical application of the recited mathematical algorithm because every substantial application of the mathematical algorithm would involve use of instructions. Since the claims cover every substantial application of the mathematical algorithm, the claims for all practical purposes pre-empt the mathematical algorithm, note Benson, 175 USPQ 673.

The examiner asserts that the use of a machine-accessible medium, as per claim 13, to perform the mathematical algorithm does not produce a tangible result, i.e. a real world result, but merely interpolated data. The examiner asserts that as with the limitation of instructions the limitation of machine-accessible medium would in effect cover every substantial practical application of the mathematical algorithm.

Furthermore, while claims 13-18 recite a machine-accessible medium paragraph 0031 of the specification defines the machine-accessible medium as including carrier waves. Therefore

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the claims fail to fall within any of the statutory categories of invention, i.e. the claims are neither process, machine, manufacture or composition of matter, because the claims merely recited a form of energy.

(10) Response to Argument

Relative to appellants' remarks the focus is not on requiring physical transformation in the Schrader sense but on lack of a practical application because the interpolated result is not a real-world result. The real question is: "Is performing a bi-linear interpolation a practical application?" Appellants' arguments relative to "motion compensation of a digital image or video" is moot in view of the "or" language of lines 1-2 of claims 1 and 13. Furthermore, the claims as originally filed and the specification itself is directed to performing a bi-linear interpolation and motion compensation is only disclosed to the extent that a bi-linear interpolation may be involved as one of the steps in performing motion compensation. Appellants' arguments relative to a practical application being recited in the specification is moot because the practical application must be recited in the claimed invention.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/David H. Malzahn/

Art Unit: 2100

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